

Notes on Chilopods and Diplopods from Southeastern Utah.

By RALPH V. CHAMBERLIN, University of Utah.

During April of the present year a field party from the Departments of Zoology and Botany of the University of Utah, consisting of twelve students and staff members, spent ten days in south-eastern Utah, chiefly in San Juan County. Incidentally to other work, the myriopods listed below were taken. The types of the new species herein described are in the author's collection.

CHILOPODA

Scolopendridae

SCOLOPENDRA POLYMORPHA (Wood). In San Juan County, specimens were taken at Bluff, between Bluff and Blanding, Blanding and Devil's Canyon; in Grand County at Moab; in Emery County at Straight Wash; and in Wayne County at Fruita.

The specimens from these southern localities are notably larger and more brightly colored than those from northern localities, such as in Salt Lake County.

Henicopidae

LAMYCTES PINAMPUS Chamberlin. Specimens of this species, described originally from Nevada, were taken on a previous expedition in Zion National Park (1923).

Gosibiidae

GOSIBIUS ARIZONENSIS Chamberlin. Many specimens taken also on the previous expedition at Lake Navajo, Iron County. The species has not previously been reported excepting from Arizona.

Ethopolidae

Archethopolys gosobius sp. nov.

A species strongly related to *A. bipunctatus* (Wood), which occurs in the northern section of the state and in Nevada. The present species in comparison with *bipunctatus* is readily distinguishable in having the ventral spines of the anal legs uniformly 1, 1, 3, 2, 0 instead of 1, 1, 3, 2, 1; the claw single. Ventral spines of penult legs 1, 1, 3, 3, 2, an accessory claw

present. Coxae of antepenult legs not ventrally armed, the last three pairs dorsally armed. Claw of female genital forceps tripartite; basal spines $3 + 3$, with the innermost on each side often much more slender than the others. Prosternal teeth mostly $3-6+6-3$ or $4-6+6-4$, occasionally with only two teeth ectad of diastema and with seven mesad of it on one side, thus differing from *bipunctatus* in which the teeth ectad of the diastema are normally two, and from *parovanus* in which normally but one. Ocelli mostly in three longitudinal series; e. g., $1 + 5, 5, 2$. Antennae long, reaching to eighth segment. Anal legs long and slender. Color in general light brownish yellow with head and caudal segments of orange cast. Length, up to 27 mm.

Locality.—San Juan County, at Devil's Canyon, between Blanding and Monticello. Ten specimens collected April 18 by R. V. Chamberlin and W. J. Gertsch. The *holotype* is a female.

Lithobiidae

TIDABIUS TIVIUS Chamberlin. Many specimens were taken at Moab, Grand County.

LOPHOBIUS SOCIUS Chamberlin. Specimens were taken in San Juan County, at Blanding, Monticello, between Monticello and Bluff, Verdure and Devil's Canyon; in Emery County at Woodside and in Sevier County at Salina.

LOPHOBIUS COLLIUM Chamberlin. Taken in San Juan County at Bluff; in Grand County at Green River; in Wayne County at Fruita; and in Carbon County at Price.

LOPHOBIUS ARIZONAE Chamberlin. Taken in San Juan County at Devil's Canyon, Verdure and LaSal Junction. Not recorded previously from the state.

POKABIUS UTAHENSIS Chamberlin. Several specimens of this form, common in the more northern canyons of the Wahsatch and Uintah Mts., were taken at Fruita, Wayne County.

Oabius sanjuanus sp. nov.

Body, head and antennae light brown, the legs more yellow. Agreeing with *deccipiens* Chamberlin and *ineptus* Chamberlin in having the anal legs armed with two claws but differing from those species in having none of the posterior coxae laterally armed. Ventral spines of anal legs, 0, 1, 3, 2, 0. Ventral spines of penult legs, 0, 1, 3, 3, 1. Ventral spines of thirteenth

legs, 0, 0, 1, (2), 1, 1. Prosternal teeth 2+2, small, the line of apices straight or a little recurved. Antennae composed of the usual 20 articles; the ultimate article about equalling the three preceding taken together. Anal leg of male a little inflated but bearing no special lobes or other modifications. Ocelli 5 in two series; thus, 1 + 3, 2. Length, 6.5 mm.

Holotype, a male, taken at Bluff, San Juan County, April 16, by H. P. Critchlow.

JUANOBIOUS gen. nov.

Similar to *Simobius* in having in the male a conspicuous subdorsal process at distal end of the fifth joint of the penult legs. It differs from that genus in having the posterior angles of the ninth, eleventh and thirteenth dorsal plates produced and in having the articles of the antennae numerous, typically 32, instead of being fixed at 20. Characters of anal legs not known.

Genotype.—*Juanobious eremus* sp. nov.

Juanobious eremus sp. nov.

Dorsum light brown, the antennae similar, the legs lighter but caudal pairs darker than the others. Antennae moderate, consisting of 32 articles. Ocelli in three series; e. g., 1, 3, 3, 2. Prosternal teeth 2, 2, or with trace of a third tooth on one side. Coxal pores small, uniseriate, 2, 3, 3 (4), 3. Ventral spines of first legs, 1, 3, 1. Ventral spines of thirteenth legs, 0, 0, 3, 3, 2; dorsal, 0, 0, 3, 2, 2. Ventral spines of penult legs, 0, 1, 3, 3, 2; dorsal, 1, 0, 3, 2, 1. Last pair of coxae armed laterally and dorsally; penult pair armed dorsally only. Fifth article of penult leg in the male obliquely excised on the inner side of the distal and above and there bearing a process a little constricted at base and with distal face oblique. Length, 12 mm.

One male taken at Devil's Canyon, San Juan, April 18, by W. J. Gertsch. The specimen lacks the anal legs.

ANOBIUS CENTURIO (Chamberlin). Many specimens taken in San Juan County at Devil's Canyon and in Grand County at Big Indian Rock, April 18 and 15 respectively. Previously known from New Mexico.

Himantariidae

Haplophilus hesperus sp. nov.

Body slender, gradually attenuated cephalad, more strongly caudad. Yellow in color, with the head light chestnut, the

antennae yellow. Cephalic plate about equal in length and breadth, widest across caudal end. Antennae more nearly cylindrical than usual in this family, all joints excepting the ultimate very short. Claws of the prehensors when closed not reaching anterior margin of head; all joints unarmed. Spiracles all small and circular. Ventral pores in a transversely oblong series on plates of anterior half of body. First legs shorter and more slender than the second. Last ventral plate of moderate width, the sides straight and converging caudad; caudal margin straight. Last coxae with numerous small pores over entire surface excepting a caudal area on lateral surface. Anal legs in female slender, a little longer than the penult. Length, 35 mm.

The *holotype*, a female, was taken at Devil's Canyon in San Juan County, April 18, 1928.

Linotaeniidae

LINOTAENIA CHIONOPHILA (Wood). One specimen taken at Devil's Canyon, San Juan County, April 18.

Chilenophilidae

GNATHOMERIUM XENOPORUS (Chamberlin). Many specimens of this form, widespread in Utah and New Mexico, were taken in San Juan County at Verdure and Devil's Canyon.

WATOPHILUS UTUS Chamberlin. A male and female taken between Moab and LaSal Junction by the author and a female taken at Bluff by W. J. Gertsch.

Unlike the other species as previously known, the number of pairs of legs in the present species seems to be subject to considerable variation. The female holotype, from the La Sal Mts., has 65 pairs of legs, that from between Moab and La Sal 73, and the one from Bluff 81. The male from between La Sal and Moab has 69 pairs of legs.

Geophilidae

Geophilus fruitanus sp. nov.

Cephalic plate without frontal suture. Prebasal plate not exposed. Prehensors when closed not surpassing anterior margin of head; joints short, all unarmed. Spiracles all circular, rather small, the first a little larger than the second. Last ventral plate very wide, the sides strongly converging caudad;

two coxal pits on each side covered by the ventral plate. Anal pores indistinct. Anal legs of female slender, ending in well-developed claws. Pairs of legs 57. Length, 38 mm. *claw*

The *holotype*, a female, was taken at Fruita, Wayne County.

This species is related to *G. mordax* Meinert, in having on each of the last coxae two large pits covered by the last ventral plate, but differs in not having the frontal plate discrete and in not having the prebasal plate exposed.

DIPLOPODA.

Craspedosomidae

TINGUPA UTAHENSIS Chamberlin. Two females were taken in Devil's Canyon, San Juan County.

Callipodidae

SPIROSTREPHON UTORUM Chamberlin. Specimens taken in San Juan County at Bluff by Emory Soule and the author and in Emery County at Straight Wash by A. M. Woodbury, W. J. Gertsch and the author.

Parajulidae

PARAJULUS VENUSTUS (Wood). Specimens taken in San Juan County at Devil's Canyon, Verdure and Blanding by A. M. Woodbury, W. J. Gertsch, E. Soule, J. R. Chamberlin and the author.

Verbose Descriptions of Insects.

By W. L. McATEE, U. S. Dept. of Agriculture,
Washington, D. C.

There are differences of opinion on most subjects, and the topic of long, compared to brief, descriptions of insects, given space in the May, 1928, ENTOMOLOGICAL NEWS*, certainly is no exception to this rule. Since a paper of which I am joint author is used as an example of short descriptions, unsatisfactory to the critic concerned, a reply by me is in order.

In the paper† referred to, the policy as to descriptions is set

* Blatchley, W. S., Vol. 39, No. 5, pp. 146-150.

† McAtee, W. L. and J. R. Malloch, Revision of the American Bugs of the Reduviid subfamily Ploiariinae. Proc. U. S. Nat. Mus., Vol. 67, No. 1, 1925.